

Sugar and the European Union: Implication of WTO Findings, and Reform

The international sugar industry is considered one of the last heavily protected agricultural sectors. With the exception of just a few countries, most producers benefit from a myriad of protectionist programs such as production quotas, supply controls, market sharing, sales quotas, import quotas, import tariffs, exports subsidies, state ownership, debt financing, et cetera. The EU is one of the major producers and consumers of sugar and is also one of the most heavily protected markets. There is much speculation concerning the effect any changes to the current regime may have on the world market. This paper reviews the analysis of various experts and offers its own conclusions.

Executive Summary

The World Trade Organization (WTO) panel report finding against the EU sugar regime is likely to have little immediate or even mid-term impact on the level of EU exports. The panel report is more likely to provide additional support for reforming the Common Market Organization (CMO). Effects of the reformed CMO will take place gradually over the next six years. EU total supplies may fall between 3 and 5 million tons, causing the EU to become a small net exporter, or possibly become trade neutral or even a small net importer. Production will gradually shift toward the more efficient Member States. Certain large and inefficient African, Caribbean, and Pacific (ACP) suppliers will be hard pressed to remain in business. The EU will honor its commitment to import 1.6 million tons from the ACP, but as a group, these countries will probably fall short of filling the quota. To a large degree the Everything But Arms¹ (EBA) countries will not have the capacity to fill much of the quantities left open by the ACP countries. Brazil will assume the predominant share of the EU's current export market and world price may not be greatly affected by the transition.

SUMMARY

The proposed reform of the EU sugar regime, as well as the (WTO) Panel finding against aspects of the EU sugar subsidized export policy, could have important repercussions on both domestic EU markets and world markets.

Current EU Commission proposals call for a reduction in the EU sugar price by around one third, a quota reduction of 3 million tons raw value² (rv) and reduced reliance on subsidized exports.

However, the WTO Panel calls into question whether all EU exports are effectively receiving export subsidies well beyond the EU's WTO export subsidy

¹ Least Developed Countries covered by the EU EBA Agreement

² All references to sugar quantities will be in raw value unless otherwise stated.

commitments. It is not clear whether the current Commission reform proposals are sufficient to take into account the results of the WTO Panel.

The results of the panel (declaring that C-sugar³ as well as ACP/India equivalent re-exports of sugar both count against EU export subsidy commitments) suggest a need to further reduce EU sugar exports by 2 to 3 million tons. Whether the EU will increase cuts in production, reorganize sugar policy so that over-quota production does not count as subsidized exports, or implement some combination of both options, will determine the impact of the WTO Panel and EU sugar reform.

Highlights of the proposed reform are:

- **EU-25 Sugar Production:** Production could be reduced by one-quarter from a current 20 million tons to possibly as low as 15 million tons in the most extreme scenario, with 16 million tons to 17 million tons being a more likely estimate. The reduction could also lead to the end of sugar beet growing in many of the higher-cost locations in the EU. However, EU sugar policy reform will be the subject of an intensive debate over the coming year, the final results of which are difficult to predict at this stage. While proposals look to compensate beet growers for price cuts, the Commission estimates the level of compensation at just 60 percent. Budget limits suggest that a substantial increase of this figure is unlikely.
- **EU Sugar Consumption:** Despite price cuts, there are unlikely to be significant changes to total EU sugar consumption. Evidence from other countries indicates that passing sugar price cuts to consumers is not likely to be significant⁴.
- **ACP Sugar Production:** The reduction in the EU sugar price will be accompanied by a reduction of the ACP's guaranteed raw sugar price. The reduction will be around a third, to euro (€)329. It is clear that some ACP countries will not be able to compete at this price. Other countries may be able to continue production provided there is some investment and restructuring. Even with a redistribution of the quotas among the quota holders, it is not clear that ACP exports to the EU will be maintained at the current 1.6 million ton level. The EU has a strong political commitment to these countries so the quota probably will be maintained, even if not fully used. However, the welfare distributions to the ACP will fall due to price cuts and reduced shipments.

³ C- sugar is over quota production that must be exported outside the EU.

⁴ "Historically, sugar price reductions have remained in the supply chain and have not been passed through to consumers in the price of finished products," British Sugar, <http://www.britishsugar.co.uk/bsweb/bsgroup/Facts/fsheet4.htm>.

- **EBA Sugar Production:** The Everything But Arms (EBA) countries have the same guaranteed minimum price that ACP countries currently enjoy, though only on minimal quotas and only until 2006. The reform proposals extend the minimum price beyond 2006. Full liberalization of EBA exports to the EU will not occur until 2008/09. It is not clear whether quotas to protect EU domestic sugar production interests will eventually limit the EBA concessions of full-unlimited access. The current Commission reform proposals do not address this point. It is difficult to see EBA countries becoming major suppliers to the EU market due to the lower EU prices and the inability of the EBA agreement to encourage investment stability ⁵.
- **Least Cost Countries Production:** The removal of possibly 3-5 million tons of EU sugar exports will create opportunities for the most efficient producers of sugar, notably Brazil. Brazil is well placed to increase its exports by an amount equivalent to the EU reduction, especially as the change is likely to be phased in over several years.
- **World Markets:** There is some debate over whether the removal of EU subsidized exports on the world market will lead to higher world market prices of sugar, an increase in least-cost country exports, or some combination of both. The reduction of EU exports, a key supplier of white sugar on world markets, is likely to speed up the emerging trend of increased trade in raw sugar.

Overview of EU Market and Policy

The EU-25 is the world's largest consumer of sugar and the second largest producer of sugar. The EU consumes about 17.6 million tons (raw value) equaling about 12 percent of world consumption. Production is around 20 million tons. Certain northern member states such as France and Germany are reasonably efficient producers and certain Mediterranean states, such as Greece and Italy, are inefficient producers. Sugar (taxpayer) subsidies cost the EU €1.7 billion a year (over \$2 billion). ⁶

While the EU sugar regime is supposed to be self-financing through a series of producer levies, several parts of the regime are funded through the EU budget, mainly the subsidized export of the ACP/India equivalent sugar and production refunds for sugar used by the chemical industry. These subsidies amount to

⁵ See GAIN Report E23149, "Everything But Arms: Declining agricultural exports from least developed countries"; for more details. <http://www.fas.usda.gov/gainfiles/200308/145985702.pdf>.

⁶ There are two basis types of subsidies, , Taxpayer subsidies which are paid out by the government and may be found in the budget, and Consumer subsidies , which are paid by consumers in the form of higher prices.

roughly €1.7 billion a year⁷. This is roughly the amount available to finance the direct payments to beet growers to compensate for lower guaranteed prices.

The EU is a net exporter of sugar, annually averaging about 3 million tons. Imports for 2004/05 are forecast at 2.3 million tons; of this, almost 1.7 million tons are shipped under special preferential arrangements quotas awarded to various ACP countries. These imports arrive as raw sugar. They are refined and their equivalent is exported, with the aid of subsidies. The subsidy for the export of ACP sugar is above the negotiated Uruguay Round limit of 1.273 million tons and €499 million by value. Any sugar exported above the subsidized ACP countries and Uruguay Round limited subsidies is shipped without the benefit of export subsidy. This quantity is generally referred to as C-sugar.

Internal Marketing Regulations Guarantee Production of C-sugar

European beet farmers receive €46 for A quota beet and €32 for B quota beet. However, the current price of C beet is €8 to €10. This is considered to be below the cost of production in most areas⁸. If a farmer fails to deliver sufficient beets to cover his quota allocation, his quota can be reduced the following year. Farmers want to avoid a quota cut at all costs, so they must grow enough beets to meet their quota, even under very poor growing conditions. In addition, the contracts between farmers and sugar processors do not allow the farmer to market beets to anyone but the specified processor. There is no open market available to buy any shortfall or sell any excess. This system leads to the over production of out of quota (C-sugar) sugar⁹.

Erosion of Export Markets

Observers of the international sugar markets have noted¹⁰ that the key EU sugar markets have declined over the last 10 years. The big Middle Eastern markets of the United Arab Emirates (UAE), Saudi Arabia, and Algeria, have invested heavily in raw sugar refineries. As F.O. Licht observes, the “new [mideast] refining capacity could mean the loss of up to 3 million tons of white sugar [exports] regardless of political developments.”

⁷ For more details of the debate on the budgetary reform, see <http://register.consilium.eu.int/pdf/en/04/st/st14020.pdf>

⁸ See Panel Report, page 31

⁹ There is some academic debate over why farmers continue to plant loss-making C-beet; however, it is clear that there is substantial production of C beet. There are important differences in how processors and beet growers interact in different Member States. It appears that C-sugar is produced up to the point where the marginal costs of sugar production are less than the world price. When marginal costs rise above this, then the sugar is stored and held against the next year's quota.

¹⁰ F.O Licht's International Sugar and Sweetener Report, Vol 136, no. 25, August 27, 2004.

Outcome of Reform and the WTO Sugar Export Subsidy Complaint

EU Policy set to change?

The current CMO has been in place since 1968 and is largely unchanged since that time. The following factors have combined to bring a political consensus that the EU's sugar policy needs to be reformed, as it is on an unsustainable path:

- Pressures from the Doha Development Round of WTO trade negotiations may help the EU to reduce its reliance on export subsidies including those for sugar.
- The current WTO panel ruled against aspects of the EU's sugar regime.
- Everything But Arms agreement liberalizing exports (reducing tariffs to zero) from Least Developed Countries (LDCs) to the EU will fully include sugar by 2009.
- Sugar is the major agricultural sector in the EU's Common Agricultural Policy (CAP) yet to be reformed.

The current CMO for sugar expires June 2006. The Commission's proposals aim to introduce the reform beginning in 2005/06; however it now appears that it will not start until a year later with a three to five year phase-in period. .

EU Reform Proposals

The current sugar CMO transfers wealth from EU consumers to ACP and EU producers. The reform will reduce transfers to ACP and EU producers with welfare gains to EU consumers in the form of lower prices (assuming price pass through) and may provide some gains to non-ACP/preferential producers. The exact distribution of those gains is not yet known.

The new CMO is expected to lead to lower sugar prices and rationalized production in the EU. Without the current level of support to producers and high levels of border protection, much of EU production would struggle to compete against low cost producers such as Brazil, Thailand, and Australia. The EU's level of border protection is not mentioned in the reform proposals. Consequently, protection is likely to remain too high to enable non-preferential imports and so will facilitate changes to trade flows from the preferential countries.

Prices

The Commission's plan for reform of the sugar regime centers on replacing the intervention price with a reference price¹¹ and then reducing that price. The reference price would be reduced by 20 percent from €506/mt in 2006/07 to €421/mt (refined value) in 2007/08. African, Caribbean, and Pacific countries

¹¹ The "intervention price" is essentially the guaranteed minimum price at which national intervention agencies will purchase quota sugar. The new "reference price" will determine the minimum price paid to beet producers, set the trigger level for the new private storage safety net, set the guaranteed prices for preferential sugar imports, and determine the level for import tariffs.

would be offered a price of €329/mt raw value. The current intervention price is €632/mt.

Quotas

The A and B production quotas, which theoretically correspond to domestic consumption and exports, respectively, would be merged and projected to fall from the current 17.4 million tons to 14.6 million tons. Production of C-sugar could be carried over and counted against a producer quota in the following year. Quotas, currently fixed per country, would be transferable between member states. This would allow production to concentrate in the more efficient states.

The quota transfer issue is a key point that is both controversial and sensitive because it would mean an end to beet production in many countries. The detailed rules setting out how quota transfers would operate in practice will likely define the effectiveness and impact of this policy. Moreover, it seems that the reforms do not touch the heart of the CMO, which is relationships between processors, and growers and the almost mandatory requirement to produce C-sugar.¹²

Isoglucose, i.e. high fructose corn sweetener (HFCS), quotas would be allowed to increase from the current level of 500,000 tons by 100,000 tons for 3 consecutive years.

Grower Compensation/de-coupling

Beet growers would receive a direct payment of about 60 percent of the revenue lost from the price cuts. The payment would be in two phases, in 2005/06 and in 2007/08. Only growers producing beets under quota in 2000, 2001, and 2002 would be eligible. This payment would be added to a farmer's single farm payment (SFP) introduced by the 2003 CAP Reform. This income payment is decoupled from production, with no obligation to grow sugar beets in the future. However, some member states may opt to keep a part of the payment coupled to production that would probably ensure that beet would still be grown¹³.

Factory Conversion

The EU would offer assistance of €250/ton for the environmental and labor cost associated with the closing of factories. This would be a one-time payment for sugar processed under quota. The EU would pay 50 percent from the central fund with the remainder coming from member states.

¹² Many beet growers perceive that should their production fall below quota, they would then have their quota permanently reduced. To prevent undershoot of the quota; they often plan to produce enough beet to cover quota requirements in a poor yield year. When yields are average or good, C beet production will be more substantial. However, it should be recognized that this practice varies from country to country.

¹³ See GAIN Report E34044, "CAP Reform 2003 - Deconstructing Decoupling" for more details on the 2003 CAP reform, decoupled payments and Member State choices to keep payments coupled to production. <http://www.fas.usda.gov/gainfiles/200408/146107107.pdf>.

ACP and Developing Country Programs

The new CMO would continue to honor the commitment to import 1.6 million tons of sugar from the ACP countries. However, the price would be reduced to €421/mt white value or €329/mt.

The refining aid intended to equalize the competition between beet processors and cane refiners would be eliminated.

Imports from the EBA agreement (EBA limited to raw sugar imports) would be priced no lower than the ACP price.

The Sugar Protocol (ACP sugar) would be integrated into the Economic Partnership Agreements (EPAs) in a manner to permit the EU to meet WTO rules and permit imports under the EBA.

The EU would assist the ACP countries to increase their competitiveness of sugar where viable; otherwise, they would encourage economic diversification.

WTO Complaint

The complaint was filed by Brazil, Australia, Colombia, Guatemala, and Thailand. These countries challenged the EU CMO on two aspects; they argued that C-sugar effectively benefits from a cross-subsidization of A and B quota sugar, so that benefits in excess of profits allows EU sugar producers to subsidize their exports and is effectively a form of export subsidy resulting from government intervention. The EU Court of Auditors calculated that the hidden subsidy was €1.49 billion¹⁴. Additionally, the plaintiffs' case draws on the precedent created by the WTO Canada Dairy case, which had similar characteristics.

The second argument concerns the status of the 1.6 million tons of ACP sugar that the EU imports per year and re-exports a corresponding level with the aid of subsidies. The complaint argues that the EU does not reduce its export subsidy commitments, nor does it include these export subsidies in its WTO notifications of export subsidies. In so doing, the EU is inconsistent with its obligations under various WTO Articles of the Agreement on Agriculture and various Articles under the Agreement on Subsidies and Countervailing Duties.

A WTO Panel report released in September 2004 and published on October 15, 2004 found against the EU on both of the central complaints. The EU indicated that it would appeal the decision¹⁵.

Impact Within the EU

The WTO may require the EU to remove "without delay" the export subsidy given to the 1.6 million tons of ACP sugar and insist that C-sugar no longer be exported

¹⁴ AgraEurope, 8/6/2004

¹⁵ http://www.wto.org/english/tratop_e/disp-e/265r_e.pdf.

by mandate¹⁶. The EU currently uses most of its Uruguay Round-sanctioned 1.3 million tons (€499 million) annual sugar export subsidy commitment limit¹⁷. Adding the 1.6 million tons for ACP/India equivalent exports to this, as well as the 2-3 million tons of C-sugar exports, would put the EU massively over its export subsidy limits. The EU would be unlikely to immediately enforce such a ruling because it would be too disruptive to both member states and ACP countries.

The EU will continue to import sugar from ACP countries, because the political commitment to these countries is too important to dismiss. The loss of the ability to use export subsidies on an equivalent amount of sugar could well lead to an additional quota cut of 1.6 million tons in the EU. Whether the quota cut translates into a production cut for ACP countries or to the elimination of C-sugar depends on how the new C-sugar rules are framed. More important is whether the ACP countries can export to the EU at a lower proposed price of €329/mt, which is an interesting, and open question. Some of the ACP countries may cease production altogether and become sugar importers.

The earliest an EU appeal decision could be completed is spring 2005, and commentators have noted that the farm trade disputes have often run for several years. It is important to remember that contracting parties (CP) to the WTO are not mandated to conform to a panel's decision. A CP has three basic options: 1) comply with the panel report, 2) negotiate a settlement with the grieving CP, or 3) accept retaliatory measures. Whatever a CP decides to do with respect to a panel decision, it is usually a function of balancing the cost to domestic political and economic imperatives for compliance against those of retaliation. Recent examples include the 1990's "Banana Wars," where the EU resisted the panel

decision in favor of the United States and top exporter Ecuador, but eventually negotiated a settlement; as well as Beef Hormones, where the EU accepted retaliation by the United States.

Impact External to the EU

Eventually EU production, together with ACP imports, might be reduced by as much as 5 million tons. Such a reduction would make the EU either trade neutral or a small net importer. Thus, the greatest likely benefit will be not in EU imports but in the void left in third country markets. The reduced exports could lead to an increased premium between the cost of white and raw sugar, making it more profitable to refine raw sugar. Refining capacities could continue expanding in Middle Eastern centers such as Dubai, Egypt, Syria, and Saudi Arabia, as well as

¹⁶ C sugar cannot be sold on the EU market and must be exported outside the EU without subsidy, by the end of the calendar year following the marketing year it was produced. If it is not exported than a fine equal to the highest import tariff in force over the previous 18 months plus an additional EUR 12/mt is levied.

¹⁷ For example, the EU exported 1.05 million tons of sugar in 2001/02 according to its export subsidy notification to the WTO.

Table 1

Eurocare Study Price Cut Options			
	Base 1997/98	Price Cut	Percent Change to Base 1997/98
	Euros/mt	Euros/mt	
EU Price	689	508	-26%
World Market Price	213	248	16%
Quota Beet Price	49	38	-22%
C - Beet Price	15	19	27%
Total Beet Price	64	35	-45%
Domestic Supply	17,181	12,705	-26%
Quota Production	14,528	10,674	-27%
C - Production	2,653	2,031	-23%
Imports	1,741	2,240	29%
LLDC	82	1,367	1567%
ACP	1,537	424	-72%
Principal World Exporters	-	82	
Domestic Demand	13,046	12,677	-3%
Total Exports	5,876	2,268	-61%
C - Exports	2,653	2,031	-23%
Subsidized Exports	2,986	-	-100%

Presented at ERS/ Farm Foundation Workshop by H.P. Witzke, Oct. 5, 2004
in parts of Africa and Asia, and Brazil. A slide in EU white sugar exports would
also enable competitors such as Brazil, Australia, and Thailand to displace the
EU in major markets in Asia, the Middle East, and Russia.

Price Effects

The Economic Research Service (ERS) of the USDA recently published a
Special Article reviewing world sugar production cost¹⁸. Table 2 is reprinted from
that article. The table's data show that the world's largest producers and
exporters are among the lowest cost producers. Most importantly the table shows
that the average cost for the major cane sugar producers is trending down.

¹⁸ see Sugar and Sweeteners Outlook/sss-241/September 28, 2005, U.S. and World Sugar and
HFCS Production Costs, 1997/98-2002/03 Steven Haley ERS, USDA

Table 2

Averaged costs of producing raw cane sugar, and beet sugar, by selected categories
of world producers, 1997/98-2001/02

Category	1997/98	1998/99	1999/00	2000/01	2001/02
	cents/lb ¹				
Raw cane sugar					
Low cost producers ²	8.25	8.11	6.84	7.95	6.59
Major producers ³	10.55	9.66	8.7	9.51	8.38
Cane sugar					
Low cost producers ²	11.92	11.77	10.39	11.6	10.11
Major producers ³	14.41	13.45	12.41	13.28	12.06
Beet sugar, refined value					
Low cost producers ⁴	22.44	24.07	23.12	23.56	24.23
Major producers ⁵	25.44	27.02	25.51	24.20	26.19

1/ Measured in current U.S. cents per pound, ex mill, factory basis.

2/ Average of six producing regions (Australia, Brazil-Center/South, Guatemala, Malawi, Zambia, and Zimbabwe).

3/ Average of six producing countries (Australia, Brazil, Colombia, Cuba, South Africa, and Thailand).

4/ Average of seven countries (Belgium, Canada, Chile, France, Turkey, United Kingdom, and United States).

5/ Average of four countries (Belgium, France, Germany, and Turkey)

Source: Sugar and Sweetener Outlook/SSS-241/September 28, 2004, Economic Research Service USDA

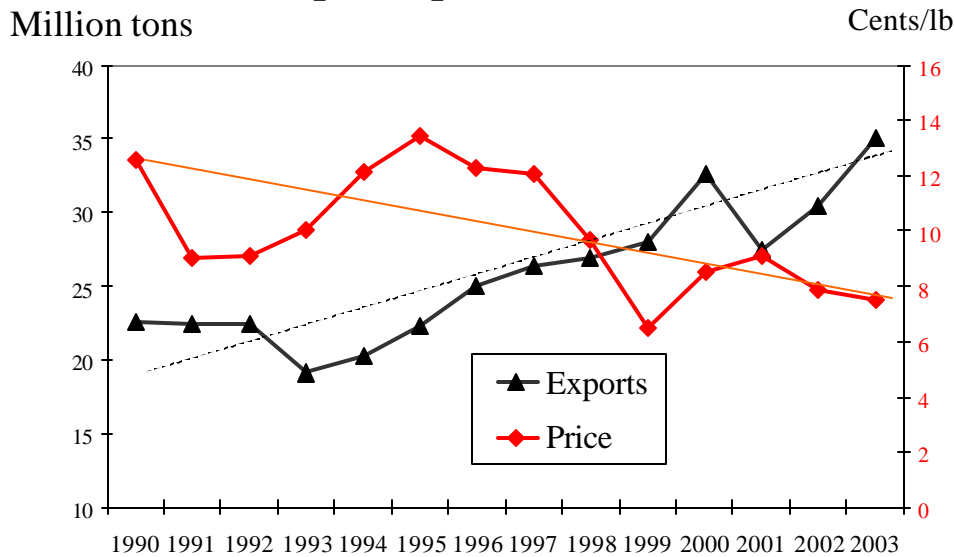
There has been a long-term negative trend in real commodity prices¹⁹. Historically, long-term commodity prices almost never go up - they go down - sometimes in nominal terms and almost always in real terms. In this context the EU reform may provide a short-term price response but is unlikely to boost the world market for an extended period.

¹⁹ See Mitchell and Varangis, World Bank, 2002. "The decline in Commodity Prices: Challenges and Possible Solutions."

<http://www.fao.org/DOCREP/006/Y4344E/y4344e0b.htm#bm11>

Chart 1

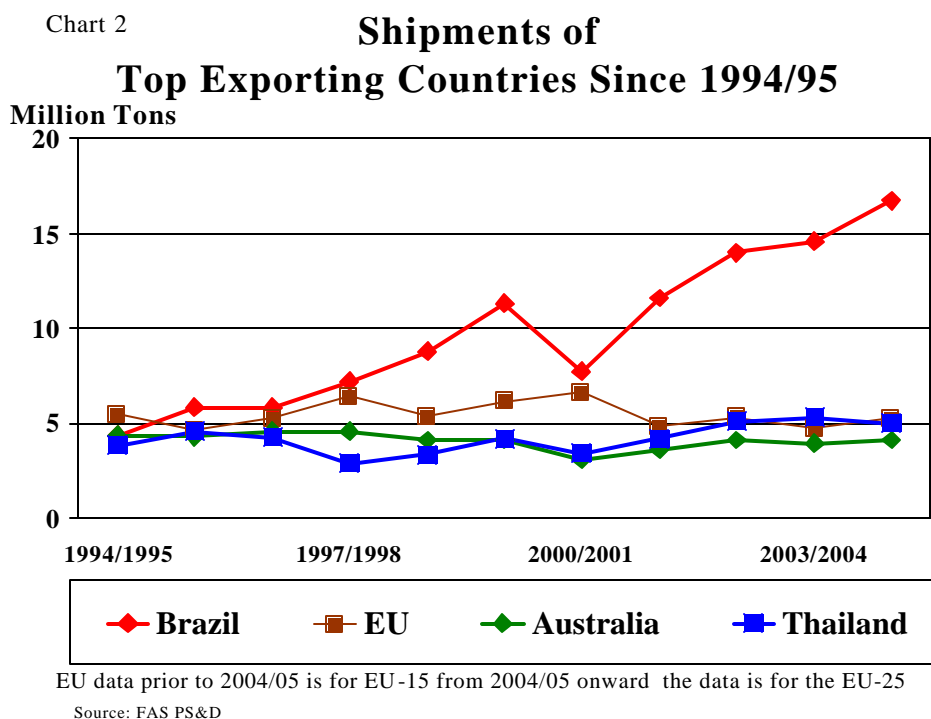
World Raw Sugar Price and Shipments from Principal Exporters, 1990-2003



Source: Exports - FAS PS&D; Price - Calendar year avg. NY #11; Principal Exporters, Brazil, Australia, Thailand, Colombia, Guatemala, Cuba, South Africa, EU-15.

Chart 1 and table 2 indicate a more profound relationship between cost and production than between production and price. Cost go down, price goes down but exportable production goes up.

Consequently, it is not necessarily true that policy reform - as in the EU - and consequent reduction of supply - as in reduced EU exports - places greater demand on world exporters causing prices to rise in response to higher production costs. Lower cost producers are the leading exporters and they are expanding shipments at the long run world price. In practice, sugar production expands faster in lower cost production areas than in higher cost countries. Furthermore, half of Brazil's sugar cane production is devoted to ethanol production, and it would be relatively simple to shift some of the ethanol production to sugar.



Winners and Losers

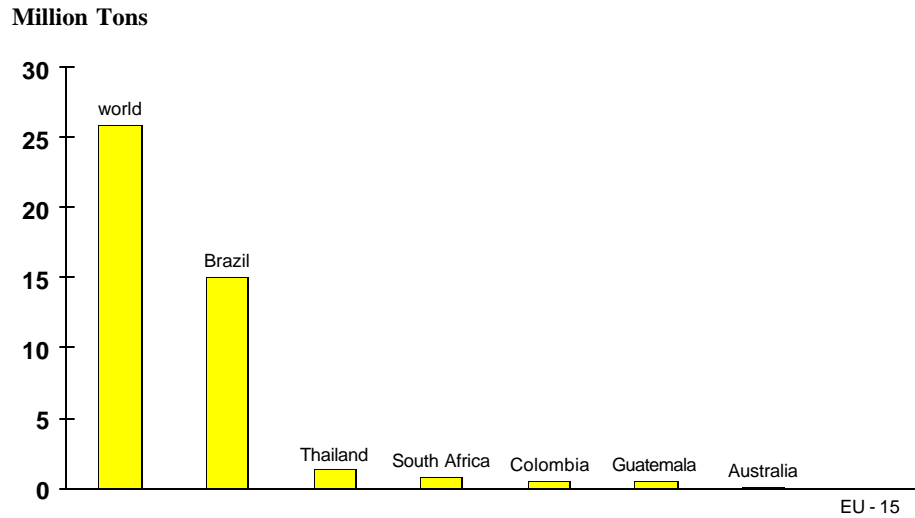
Winners

In 2004/05, 47 countries are forecast to export more than they import²⁰. Eight of these countries account for about 88 percent of the world's net exports. Within this group, the EU ranks as the fourth largest net exporter of sugar preceded by Brazil, Australia, and Thailand. These top four exporters account for about 60 percent of total world exports. Although the EU is the fourth largest net exporter, net shipments outside the EU have been declining over the last 10 years. If the EU becomes trade neutral, the other seven net exporters would fill the rather static EU export position.

²⁰ Analysis for this paragraph is based on data in the USDA, Foreign Agricultural Service, Production, Supply and Distribution database. The database is available through the FAS website (www.fas.usda.gov/psd).

Chart 3

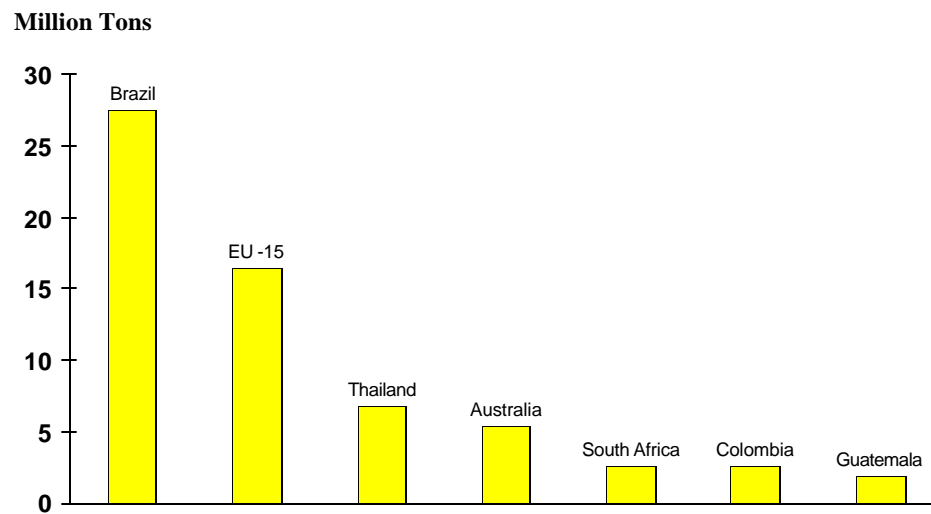
Growth of Sugar Production in Principal Net Exporting Countries Since 1994/95



Source: FAS PS&D

Chart 4

Production in Net Exporting Countries Forecast 2004/05



Source: FAS PS&D

Brazil would be the biggest winner because it is the lowest cost producer, can easily shift some of the enormous quantity of sugarcane devoted to ethanol production into the production of sugar, and has the land available to expand into new production.

Losers Within the EU

Table 5 entitled “Comparison Across Country of Indicative Sugar Beet and Sugar Cane Price and Yields and Prices of Beet and Cane Sugar” is sorted by the column entitled “Domestic Prices for Beet Sugar” and then by “Domestic Prices for Cane Sugar”. There are two entries for the EU. One is for the price situation of 2002/03 and the other is with the suggested reform price for beet sugar and cane sugar. The exchange rate and sugar content variables remain the same. This table suggests that overall the EU prices would not change dramatically among world producers. Therefore, the EU will still need to maintain high tariffs to protect the continental market.

Table 3

EU Member States	EU Market Price	
	EUR/mt	\$/mt
Cease Production		
Greece Ireland Italy	725 to 625	746.75 to 643.75
Spain Finland Latvia Lithuania Portugal Slovakia Slovenia	625 to 525	643.75 to 540.75
Belgium Czech Republic Denmark Hungary Netherlands	525 to 475	540.75 to 489.25
Austria Germany Poland Sweden UK	475 to 425	489.25 to 437.75
France	425 to 400	437.75 to 412.00

Exchange rate \$1.03/EUR

Source: EU Commission Impact Statement 2003

The lower internal prices may shift production within the EU member states. Table 3, developed by the European Commission, provides some indication of which member states would move out of production depending upon various minimum price points. The proposed reference price would be set at €506/mt for 2005/06 and 2006/07 and €421/mt (white value) from 2007/08 onward. Accordingly, 15 countries would reduce production, or most unlikely, go completely out of production. The 1996 - 2001 average production for the remaining six countries, Austria, Germany, Poland, Sweden, the UK, and France, was 13.8 million tons. This figure is close to the 14.4 million tons consumed by the EU-15.

The EU-25 is projected to consume about 17.6 million tons. Theoretically, it is more than possible that the EU-25 could rationalize production to the most efficient producers. However, cross-border quota trading is strongly opposed by most of the Mediterranean countries as well as Ireland, Lithuania, and Hungary.

Many of the less productive countries maintain excess production capacity. A look at the situation in Greece is suggestive of the possible effects of rationalization.

Greece currently operates 5 plants at under capacity in order to maintain employment. Under the new CMO, at least 2 plants would have to be closed, and sugar beet production would be reduced and eventually phased out. About 38,000 hectares of irrigated land would have to be moved to other crops, mostly horticultural. The potential social and economic dislocation arising from the proposed CMO is under severe criticism.

The biggest problem for the Commission will be to convince growers to accept alternatives to sugar production.

ACP

The total value of the income transfer to the ACP countries is placed at \$500 million (at 2001 prices).

Currently the EU bestows sugar quotas and benefits on developing countries under three different programs.

- *The Sugar Protocol (SP)* has historical ties to EU member states dating beyond the 1975 Lome Convention, when it was negotiated. The SP states that the EU will undertake, for an indefinite period, to import specific quantities of cane sugar, at guaranteed prices from ACP countries.
- *The Special Preferential Sugar agreement (SPS)* was created in 1995 at the end of the transitional period granted to the refining industries in Portugal and Finland. It was created to supply part of the additional requirement of 200,000 - 300,000 tons of sugar. Unlike the SP protocol, sugar entering under the SPS is limited in time vs. the "indefinite period" as in the SP. The

quantities imported under the SPS may vary from year to year vs. being fixed in the SP, and the price paid is 85 percent that of the SP sugar.

- Sugar imports under the *Everything But Arms (EBA)* initiative began after 2001. Concessions beginning with 74,185 tons will increase gradually, by 15 percent per year until 2006²¹, when the out of quota tariff rate will be reduced to zero over several years. Eventually the SP and SPS agreements are to be integrated into an Economic Partnership Agreement (EPA) between the EU and ACP countries. The EPA's are to be negotiated under WTO rules and leave room for EBA imports. Apparently, there may be a reordering of EU sugar imports in favor of more efficient producers and EBA countries.

The ACP countries are potentially at more risk than the EU member states because sugar is a major source of income for many of these countries and their resources are limited, offering fewer economic alternatives. Table 4 entitled "Indicative Weighted Average Export Price and Estimated Loss of Revenue For U.S. and Quota Countries Due to EU Price Reform" is sorted on the last column "Loss of Revenue Due to Price." The table shows, in declining order, the countries that will lose the most revenue due to the reduced EU minimum price. Revenues to ACP countries will drop but they will still sell into a protected market. As note previously, in the "Price Effects" section of this paper, there appears to be a very close relationship to lower cost and higher production. Thus, reducing cost of production will be critical to maintaining production.

Table 4 provides some empirical evidence as to which countries may be able to maintain competitiveness once the guaranteed EU price they receive is cut. It suggests which countries might be most likely to reduce or discontinue producing sugar. The table is not necessarily a harbinger of the future. The loss of revenue in some of these countries, such as Mauritius and Guyana, does not take into account actions on their part to restructure and modernize their facilities. Mauritius is attempting to reduce production cost to 10 - 12 cents/lb by 2008 and reduce the number of sugar mills from 14 down to 7 or 8. The industry is also investing in more mechanization and improved irrigation systems. Guyana's sugar industry is run by the state owned Guyana Sugar Corporation (Guysuco). Guysuco is bringing a new sugar mill on-line in 2005 that will raise output at an estimated cost of 10 - 11 cents/lb. Essentially, Guysuco is planning to benefit from the expected demise of the sugar industries in Barbados, Trinidad and Tobago, and St. Kitts.

Certain countries will face serious difficulties. For example, Trinidad and Tobago have only one sugar mill, which is government owned and burdened with debts reportedly over \$130 million. In Jamaica, the government owned Sugar

²¹ This TRQ comes out of the SPS quantities; i.e., since the opening of this TRQ, the SPS TRQ has been reduced by the same amount. Thus EBA, until 2006 at least, has not made any difference to the quantities of sugar the EU imports.

Corporation produces 65 percent of the raw sugar. The government has supported the industry with \$124 million over the past 4 years.

Countries with a high percentage of their exports committed to the EU are still vulnerable; for example, Fiji, Mauritius, Guyana, and Swaziland. These countries must concentrate on reforming their industries. The SP constituted more than 15 percent of Mauritius and Guyana's exports. Of these four, Fiji is probably in the most precarious position. The following profile of Fiji indirectly points out that some ACP countries will need to address some difficult political and economic decisions if they are to continue producing sugar in the future.

Fiji Profile

Although tourism has displaced sugar as the largest earner of foreign exchange for Fiji, the sugar industry supports 20 percent of the population or about 170,000 people. The industry employs 13 percent of the work force, 21,000 growers, 15,000 cane cutters, and 2,600 mill workers. The sugar industry accounts for 7 percent of the GDP, 22 percent of export earnings, and 8.5 percent of the foreign exchange. It receives annually \$5 to \$15 million in soft government loans to cover operating expenses and is dependent upon EU quota rent to remain in business.

The Fijian sugar industry is characterized as being inefficient, overstaffed, and highly politicized. It is one of the least efficient sugar industries in the world. The poor productivity is attributed to several factors:

Land Tenure, Insecurity

Most of the land under cultivation is farmed on leased land. Many of the leases are not being renewed thus creating squatter communities while also depriving the owners of cash revenue. The land might be productive except that the system provides no incentive for the farmer to improve the land, rotate crops or replant with new cane varieties.

Systemic Dysfunction

Mills must accept all available cane and pay producers by weight rather than sugar content. As a result, Fiji's cane yields are low, the sugar content of the cane is low, and the quality of the sugar is poor. Fiji produces 19.6 tons of cane per acre compared to 31.9 tons in Queensland, Australia, and Mauritius; 39 tons in Florida; and 29 tons in Louisiana.

Dependence upon Quota Rents

The industry has not felt a need to be productive because it sells most of its sugar to the EU and United States receiving high priced quota rents.

Hapless Reform

In 2002/03 the government developed a comprehensive plan costing \$100 million to downsize and make the industry more competitive. However, the plan was

abandoned due to the lack of political support. Reportedly, the plan would have resulted in the loss of 13,500 jobs. It would also have reduced money flowing to landowners, farmers, and transport and sugar mill workers. A new plan was put forward treating the sector as a social rather than political problem. It proposes government subsidies to support the various sectors. The plan would have an up-front cost of \$34 million, but over 10 years could run over \$170 million. The plan envisions purchasing equipment to upgrade the mills and implement certain technologies to improve transport efficiency. This plan is viewed as a temporary measure designed to get the government through near term elections, but will lead to huge losses exceeding the government's financial capacity. This plan ignores the reality that Fiji needs to reduce cost through restructuring.

Opportunities for Other Developing Countries

It is difficult to see how any developing country that is not already producing sugar can really take up any scraps left on the table after Brazil and Australia have their way. These two countries are just too efficient and the sunk costs associated with developing a quality world competitive sugar production are too great. In fact, the EU reform foresees contraction in the number of producers rather than expansion. In proposing specific measures to help SP countries adapt to market conditions, the EU has three options:

1. Compensation for lost income
2. Support for increasing competitiveness
3. Support with contraction and diversification into other activities

Since the emphasis of the EU reform is toward a market-based economy, it is not likely that programs involving direct subsidies and cash outlays will be used.

Table 4

**Indicative Weighted Average Export Prices and Estimated Loss of Revenue
For U.S. and EU Quota Countries Due to EU Price Reform**

Countries Mutual to the U.S. and EU Receiving a Quota Benefit	US	EU	Total Quota	Total	Weighted Avg	Weighted Avg	Loss of Revenue
	Quota	Quota	Benefit	Exports	Export Price/mt ¹	Export Price/mt ²	Due to Price
	2003	2003	2003	2003	2002/03	Using Proposed Price	Reduction
	1000 Metric Tons raw value				U. S. \$/metric ton		
Jamaica & Dep	11.6	147	158.6	129	\$461.52	\$320.21	-\$141.31
Trinidad and Tobago	7.4	53	60.4	55	\$467.62	\$326.10	-\$141.52
Barbados	7.3	54	61.3	40	\$463.40	\$336.46	-\$126.95
St. Kitts and Nevis	7.3	17	24.3	20	\$437.39	\$379.70	-\$57.69
Cote d'Ivoire	7.2	21	28.2	65	\$301.66	\$251.49	-\$50.17
Madagascar	7.3	12	19.3	35	\$336.89	\$283.65	-\$53.24
Mozambique	14	8	22	100	\$241.68	\$229.26	-\$12.42
Mauritius	12.6	548	560.6	567	\$456.07	\$307.61	-\$148.46
Belize	11.6	49	60.6	93	\$363.58	\$281.76	-\$81.82
Fiji	9.5	199	208.5	279	\$388.87	\$278.11	-\$110.76
Guyana	12.6	189	201.6	294	\$348.08	\$290.46	-\$57.62
Congo (Brazzaville)	7.2	13	20.2	18	\$467.75	\$374.58	-\$93.17
Swaziland	16.8	183	199.8	278	\$376.07	\$283.30	-\$92.77
India	8.4	21	29.4	1410	\$182.59	\$180.27	-\$2.31
Malawi	10.5	44	54.5	40	\$494.93	\$299.06	-\$195.88
Zimbabwe	12.6	59	71.6	154	\$402.46	\$341.28	-\$61.18
Countries Exclusive to the EU							
Ethiopia	0	15	15	121	\$459.76	\$304.47	-\$155.29
Kenya	0	12	12	11	\$459.76	\$304.47	-\$155.29
Burkina Faso	0	7	6	8	\$424.36	\$266.41	-\$157.95
Tanzania; United Republic of	0	13	13	22	\$343.90	\$179.92	-\$163.99
Zambia	0	23	21	93	\$246.64	\$75.30	-\$171.34
Sudan	0	17	16	236	\$202.59	\$21.93	-\$180.66
Nepal	0	9	8	0	\$346.49	\$0.00	-\$346.49
Surinam	0	0	0	0	\$0.00	\$0.00	\$0.00
Uganda	0	0	0	0	\$0.00	\$0.00	\$0.00

¹ U.S. price 21.76 cents /lb: \$479.73/mt - NY # 14 2002/03 fiscal year avg

² EU price to ACP countries 496.8 EUR/mt CIF free at EU port: 2003 exchange rate average Oct 02/ Sept. 2003 \$.92545 =1 euro \$459.76/MT

³ World Price 8.01 cents/lb: \$176.59/ MT - NY # 11 2002/03 fiscal year

⁴ Proposed EU Price of 320 EUR/mt using the above exchange rate = \$304.47

Note do not assume that quota countries take full advantage of the benefit

Table 5

Comparison Across Country of Indicative Prices and Yields for Sugar Cane and Sugar Beets and Prices for Cane and Beet Sugar - 2002/03

Countries	Price/mt (\$US)		Sugar Content/mt		Domestic Prices/Kg (\$US)		Value of Product Cane Sugar	Value of Cane Sugar Sugar Minus Cane Material Cost	Value of Product Beet Sugar	Value of Beet Sugar Minus Beet Material Cost
	Sugar Cane	Sugar Beets	Cane Sugar in Kg	Beet Sugar In Kg	Cane Sugar	Beet Sugar				
Japan	\$169.43	\$144.37	140	172	\$1.44	\$1.44	\$201.60	\$32.17	\$247.68	\$103.31
Turkey		\$62.35		143		\$1.07			\$153.01	\$90.66
European Union		\$39.68		146	0.56 ¹	\$0.84			\$122.64	\$82.96
United States	\$32.63	\$44.43	127	157	\$0.48	\$0.60	\$60.96	\$28.33	\$93.65	\$49.22
EU with reform price		\$25.36		146	0.31 ¹	\$0.56			\$81.76	\$56.40
Chile		\$45.00		160		\$0.47			\$75.20	\$30.20
Ukraine		\$31.56		111.00		\$0.46			\$51.06	\$19.50
China	\$18.14	\$26.72	115	125	\$0.28	\$0.31	\$32.20	\$14.06	\$38.75	\$12.03
Mexico	\$31.50		112		\$0.63		\$70.56	\$39.06		
El Salvador	\$20.17		111.8		\$0.60		\$67.08	\$46.91		
Ecuador	\$15.94		87		\$0.45		\$39.24	\$23.30		
Nicaragua	\$13.22		104.4		\$0.44		\$45.93	\$32.71		
South Africa	\$17.63		123		\$0.37		\$45.51	\$27.88		
Pakistan	\$18.30		87.4		\$0.36		\$31.46	\$13.16		
Colombia	\$19.80		119		\$0.34		\$40.46	\$20.66		
Australia	\$15.12		144		\$0.30		\$43.20	\$28.08		
Thailand	\$14.49		98		\$0.30		\$29.40	\$14.91		
Dominican Republic	\$13.93		100		\$0.29		\$29.00	\$15.07		
Philippines	\$19.28		91.29		\$0.29		\$26.47	\$7.19		
India	\$18.34		103		\$0.28		\$28.84	\$10.50		
Brazil	\$10.50		118		\$0.20		\$23.60	\$13.10		
Argentina	\$14.00		107		\$0.18		\$19.26	\$5.26		

This article was prepared in September 2004 by Robert Knapp, Economist, Horticultural and Tropical Products Division, Foreign Agricultural Service, USDA. 202-720-4620, E- mail knapp @fas.usda.gov and by Dr. Peter Talks, Agricultural Specialist US Mission to the EU, Brussels , Belgium, e-mail peter.talks@usda.gov

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